Stolthaven New Orleans LLC
TASK PLAN
40365-1
Onsite Soil/Sediment Sampling and Analysis Plan

Objective: The following task is to sample soil/sediment onsite at the Stolthaven New Orleans, LLC (Stolthaven) facility located at 2444 English Turn Road Braithwaite, LA (Site). The plan will commence when approved by representatives of Louisiana Department of Environmental Quality (LDEQ).

Safety: Site personnel will review and adhere to the site-specific Health and Safety Plan (HASP). Pre-task safety tailgate meetings to review job specific hazards will be conducted prior to sampling activities. Breathing zones during all herein described onsite sampling activities will be monitored thru the site-specific Air Sampling and Analysis Plan (SAP), which has been prepared and approved by Unified Command (UC).

Purpose: CTEH®, on behalf of Stolthaven, will collect a representative number of soil/sediment samples onsite for the purposes of determining chemical constituents in soil/sediment, fingerprinting, and estimating quantities of Diethanolamine (DEA) present onsite. Samples will be collected from earthen berms and other soil/sediment onsite. Samples will be collected if locations can be safely accessed and there is sufficient soil/sediment to sample.

Procedure: The following procedures will be implemented for this task.

1. Soil samples from each location will be collected from direct push Encore® sampling devices if analyzing for volatile organic compounds(VOCs). For Encore® sampling device collected samples, the correct amount of soil aliquot (i.e., 5 grams) will be collected. For samples submitted in the laboratory supplied soil jars, the sample containers will be completely filled to minimize headspace. Samples will be collected after vegetation, rocks, litter, and other non-native soil material which may bias the sample are carefully removed. All soil samples will be collected from locations that are reasonable and safe to access.

2. Disposable tools will be used whenever possible to eliminate the need for decontamination. In the event that disposable tools cannot be used, non-disposable equipment will be used. Non-disposable equipment that comes into contact with sampling media will be decontaminated using a bristled brush and a solution comprised of a laboratory grade, non-phosphate detergent (e.g., Alconox or Liquinox), rinsed with water, then rinsed a second time with deionized water. Decontamination derived waste will be managed in accordance with the waste management plan.

3. The following field notes will be collected for each soil/sediment sample:
    a. Observations regarding color, odor, etc
    b. GIS coordinates of sampling points
    c. Photo-documentation of sample area
    d. Date and time
    e. Relative location in containment cell (e.g., northeast corner, center, etc)
    f. Depth of sample collection (e.g., if anything other than surface)

4. Sample containers will be clearly labeled with the following information:
    a. Unique sample identification

b. Sample Type (e.g., discrete or composite)
c. Sampler initials
d. Date and time sample collected
e. Preservative

5. Field samples will be contained and preserved in accordance with appropriate USEPA specifications consistent with the intended analysis.

6. Evidence of collection, shipment, laboratory receipt, and laboratory custody while samples are in the laboratory's possession will be documented by maintaining a Chain Of Custody (COC) that records each sample and the individuals responsible for sample collection, shipment, and receipt at the project laboratory. All Samples will be accompanied by a COC Record.

7. Samples will be submitted to Gulf Coast Analytical Laboratories, Inc. (GCAL) in Baton Rouge, Louisiana, Test America Laboratories in Mobile, AL or to Pace Analytical Services, Inc. (Pace), in St. Rose, Louisiana, depending on the desired purpose (eg. Analysis, retain, or archive).

8. Initially, the requested laboratory turn-around-time (TAT) for receipt of results will be 24-hours.

9. Two splits of each sample will be collected and one set will be retained by GCAL and another set will be archived by Pace.

Sampling Methods: Soil samples will be analyzed using one or more of the following methods.

Analysis	Method	Containers	Preservative	Hold Time
Total Organic Carbon (TOC)	9060	100 grams of soil from a 4oz soil jar	Unpreserved; maintained on ice at 4° C	28 days
TPH Fractions	Mass EPH (mod)	30 grams of soil from a 4oz soil jar	Unpreserved; maintained on ice until 4° C	14 days
Volatiles Organic Compounds (VOCs) plus Tentatively Identified Compounds (TICs)	8260	5 grams of soil in each Encore	Unpreserved; maintained on ice until 4° C	48 hours
Semi-Volatile Organic Compounds (SVOCs) plus TICs	8270	30 grams of soil from a 4oz soil jar	Unpreserved; maintained on ice until 4° C	14 days
DEA	8015	30 grams of soil	Unpreserved; maintained on ice until	14

		from a 4oz soil jar	4° C	days

Quality Assurance: The goal of the field Quality Assurance (QA) program is to document that samples are collected without introducing a bias (i.e., the effects of accidental cross- or systematic contamination are eliminated) and refers to the sampling and analysis procedures for generating valid and defensible data. To provide QA for the proposed sampling, the following QA will occur:

- Field Duplicate Sample (1 in 10 samples)
- Two field Split Samples provided to Pace and GCAL
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) (1 in 20 samples)
- Laboratory quality control (procedures will be conducted in a manner consistent with relevant State and federal regulatory guidance)

	Name(s)/Position	Signature	Date Signed
Prepared By:	Kyle Lawrence, *ESPM* Andy Haner, *ESPM*		10/1/2012
Reviewed By:	Dr. Phil Goad, *Partner and Principal Toxicologist* Dr. Michael Berg, *Project Toxicologist*		10/1/2012
Approved By:	PHILIP WATT	P. Watt	10/1/2012
Approved By:		LDEQ	10/1/2012
Approved By :			
Approved By:			

Disposable En Core® Sampler

Sampling Procedures

Using The En Core® T-Handle

En Novative Technologies, Inc.
1795 Industrial Drive
Green Bay, WI 54302
Phone: 920-465-3960 • Fax: 920-465-3963
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NOTE:

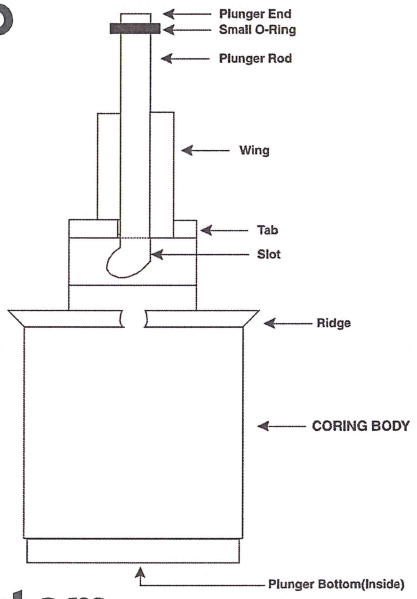
1. En Core® Sampler is a SINGLE USE device. It cannot be cleaned and/or reused.

2. En Core® Sampler is designed to store soil. Do not use En Core Sampler to store solvent or free product!

3. En Core® Sampler must be used with En Core® T-Handle and/or En Core® Extrusion Tool exclusively. (These items are sold separately.)

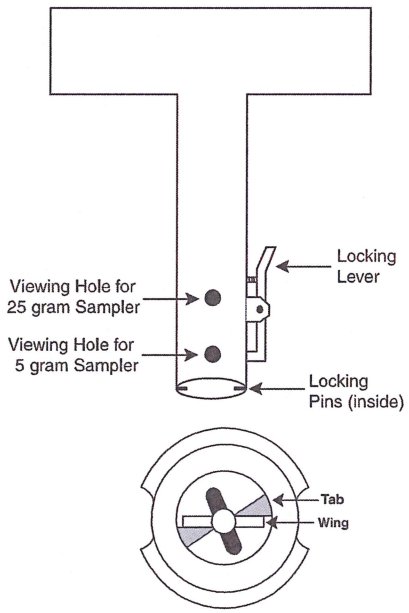
En Core®

Top



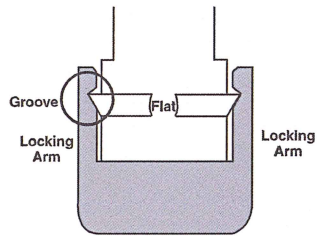
Bottom

En Core® T-Handle



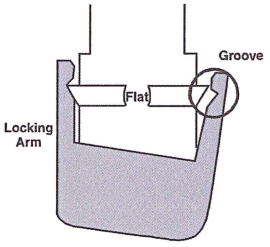
Sampler Correctly Capped

(Locking arm grooves seated over coring body ridge.)



Sampler Incorrectly Capped

(Cap appears crooked; locking arm grooves not fully seated over coring body ridge.)



BEFORE TAKING SAMPLE:

1. Hold **coring body** and push **plunger rod** down until **small o-ring** rests against **tabs**. This will assure that plunger moves freely.

2. Depress **locking lever** on En Core T-Handle. Place coring body, **plunger end first,** into open end of T-Handle, *aligning the (2)* ***slots*** *on the coring body with the (2)* ***locking pins*** *in the T-Handle*. Twist coring body clockwise to lock pins in slots. Check to ensure Sampler is locked in place. Sampler is ready for use.

TAKING SAMPLE:

3. Turn T-Handle with T-up and coring body down. This positions plunger bottom flush with bottom of coring body (ensure that plunger bottom is in position). Using T-Handle, push Sampler into soil until coring body is completely full. When full, small o-ring will be centered in T-Handle **viewing hole**. Remove Sampler from soil. Wipe excess soil from coring body exterior.

4. Cap coring body while it is still on T-handle. *Push* **cap** over **flat** area of **ridge** *and twist* to lock **cap** in place. **CAP MUST BE SEATED TO SEAL SAMPLER (see diagram).**

PREPARING SAMPLER FOR SHIPMENT:

5. Remove the capped Sampler by depressing locking lever on T-Handle while twisting and pulling Sampler from T-Handle.

6. Lock plunger by rotating extended plunger rod fully counter-clockwise until **wings** rest firmly against tabs (see plunger diagram).

7. Attach completed tear-off label (from En Core Sampler bag) to cap on coring body.

8. Return full En Core Sampler to zipper bag. Seal bag and put on ice.

Disposable En Core® Sampler

EXTRUSION PROCEDURES

USING THE En Core® EXTRUSION TOOL

CAUTION! Always use the Extrusion Tool to extrude soil from the En Core Sampler. If the Extrusion Tool is not used, the Sampler may fragment, causing injury.

1. To attach En Core Sampler to En Core Extrusion Tool: Depress locking lever on Extrusion Tool and place Sampler, plunger end first, into open end of Extrusion Tool, aligning slots on coring body with pins in Extrusion Tool. Turn coring body clockwise until it locks into place. Release locking lever.

2. Rotate and gently push Extrusion Tool plunger knob clockwise until plunger slides over wings of coring body. (When properly positioned plunger will not rotate further.)

3. Hold Extrusion Tool with capped Sampler pointed upward so soil does not fall out when cap is removed. Remove cap from Sampler by rotating cap until locking arms are aligned with the flat area of ridge and pull cap off. To release soil core push down on plunger knob of En Core Extrusion Tool. Remove and properly dispose of En Core Sampler.

Warranty and Disclaimers

IMPORTANT: FAILURE TO USE THE EN CORE® SAMPLER IN COMPLIANCE WITH THE WRITTEN INSTRUCTIONS PROVIDED HEREIN VOIDS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

PRINCIPLE OF USE. The En Core Sampler Cartridge System is a volumetric sampling system designed to collect, store and deliver a soil sample. The En Core Sampler comes in two sizes for sample volumes of approximately 25 or 5 grams. There are four components: the cartridge with a movable plunger; a cap with two locking arms; a T-handle (purchased separately); and an extrusion handle (purchased separately). NOTE: The En Core Sampler is designed to store soil. It is not designed to store solvent or free product.

The soil is stored in a sealed headspace-free state. The seals are achieved by three special Viton® * o-rings, two located on the plunger and one on the cap of the Sampler. At no time and under no condition should these o-rings be removed or disturbed.

QUALITY CONTROL. The cartridge is sealed in an airtight package to prevent contamination prior to use. Due to the stringent quality control requirements associated with the use of this system, the disposable cartridge is designed to be used only once.

WARRANTY. En Novative Technologies, Inc. ("En Novative Technologies") warrants that the En Core Sampler shall perform consistent with the research conducted under En Novative Technologies' approval, within thirty (30) days from the date of delivery, provided that the Customer gives En Novative Technologies prompt notice of any defect or failure to perform and satisfactory proof thereof. THIS WARRANTY DOES NOT APPLY TO THE FOLLOWING, AS SOLELY DETERMINED BY EN NOVATIVE TECHNOLOGIES: (a) Damage caused by accident, abuse, mishandling or dropping; (b)Samplers that have been opened, taken apart or mishandled; (c)Samplers not used in accordance with the directions; and (d)Damages exceeding the cost of the sampler. Seller warrants that all En Core Samplers shall be free from defects in title. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY INFORMATION PROVIDED BY SALES REPRESENTATIVES OR IN MARKETING LITERATURE. IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY SHALL NOT APPLY. En Novative Technologies' warranty obligations and Customer's remedies, except as to title, are solely and exclusively as stated herein.

LIMITATION OF LIABILITY. IN NO EVENT SHALL EN NOVATIVE TECHNOLOGIES BE LIABLE FOR ANTICIPATED PROFITS, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF REVENUE, DOWN TIME, REMEDIATION ACTIVITIES, REMOBILIZATION OR RESAMPLING, COST OF CAPITAL, SERVICE INTERRUPTION OR FAILURE OF SUPPLY, LIABILITY OF CUSTOMER TO A THIRD PARTY, OR FOR LABOR, OVERHEAD, TRANSPORTATION, SUBSTITUTE SUPPLY SOURCES OR ANY OTHER EXPENSE, DAMAGE OR LOSS, INCLUDING PERSONAL INJURY OR PROPERTY DAMAGE. En Novative Technologies' liability on any claim of any kind shall be replacement of the En Core Sampler or refund of the purchase price. En Novative Technologies shall not be liable for penalties of any description whatsoever. In the event the En Core Sampler will be utilized by Customer on behalf of a third party, such third party shall not occupy the position of a third-party beneficiary of the obligation or warranty provided by En Novative Technologies, and no such third party shall have the right to enforce same. All claims must be brought within one (1) year of shipment, regardless of their nature.

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The En Core™ Sampler is covered by One or More of the Following U.S. Patents: 5,343,771; 5,505,098; 5,517,868; 5,522,271. Other U.S. and Foreign Patents Pending.

* Viton® is a registered trademark of DuPont Dow Elastomers.